

ROLLING BEARING**Publication number:** JP6341441**Publication date:** 1994-12-13**Inventor:** OKITA SHIGERU; UCHIUMI YASUO; KIUCHI AKIHIRO**Applicant:** NIPPON SEIKO KK**Classification:**

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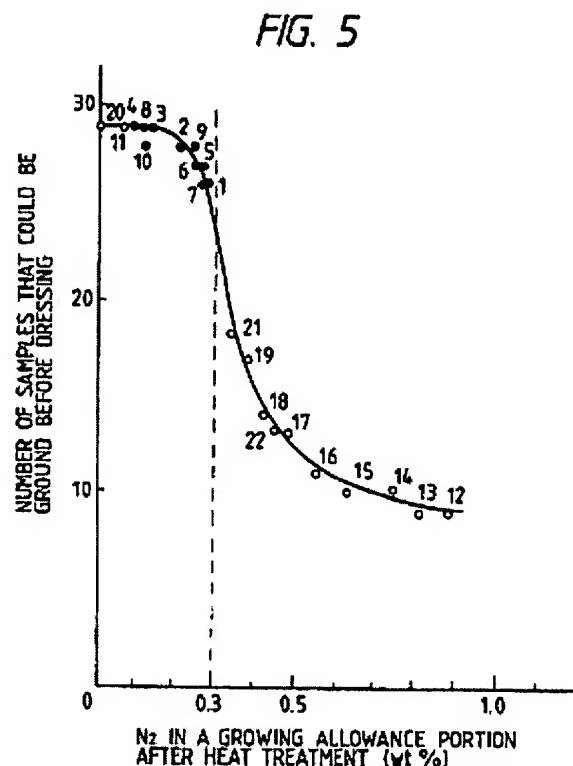
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Abstract of JP6341441

PURPOSE: To improve grinding efficiency and rolling fatigue life by using alloy steel of specific carbon content as the raw material, and respectively specifying the carbon concentration, the nitrogen concentration, and the nitrogen gradient of a surface layer of at least one of finished goods such as an outer ring, an inner ring, and rolling bodies, when the raw material is treated with a prescribed process so as to form a bearing. **CONSTITUTION:** Alloy steel containing carbon in the range over 0.1 weight % and under 1.2 weight % is used as raw material, and after carbonitriding treatment and hardening heat treatment, the grinding allowance part is grindingly finished so as to form a rolling bearing. At this time, at least one of finished goods such as an outer ring, an inner ring, and rolling bodies is set so that in the surface layer the carbon concentration is over 0.9 weight % and under 1.6 weight %, the nitrogen concentration is over 0.05 weight % and under 0.3 weight %, and the nitrogen gradient is under 0.5 weight %/mm.



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